

Table 1. Performance of Gamma Cameras Relative to Full-Ring PET Systems

Anatomic Location	Author/Year	Type of Gold Standard	Crystal Thickness	Acquis. Time	Sensitivity	Specificity	% Patients w/ Incorr. Staging	Data Specified by Size of Lesion	Miscellaneous Notes
Brain									
	Landoni 1999	BGO Full-ring PET	5/8"	N/A	100%	N/A		Yes: 100% concordance if at least 2.0 cm	
	Delbeke 1999	BGO Full-ring PET	3/8"	Similar	73%	N/A		Yes	
Head and Neck									
	Zimny 1999 (Eur J Nuc Med)	BGO Full-ring PET	5/8"	Similar	89%	N/A		Yes: 100% concordance if at least 2.0 cm	Attenuation-corrected values used.
	Zimny 1999 (Nuklearmedizin)	BGO Full-ring PET	5/8"	Similar	82%	N/A	11%*	Yes: 100% concordance if at least 1.8 cm	*Applies to all tumor types in this article.
	Shreve 1998	BGO Full-ring PET	5/8"	Similar	71%	N/A		No	
	Dresel 1999 (Abstract)	BGO Full-ring PET	3/4"	N/A	100%	N/A		No	Mouth and tongue lesions only.
	Segall 1999 (Abstract)	BGO Full-ring PET	1/2"	Similar	92%	N/A		No	Regional acquisition times for full-ring (25 min) and camera systems (30 min), with same pattern for all other studies described as "similar" in Table 1.
	Berger 2000 (Abstract on Thyroid Cancer)	Full-ring PET, Unspecified Crystal	5/8"	N/A	69%	N/A	16%	Yes: 100% concordance if at least 1.5 cm	
Lung									
	Tatsumi 1999	Histopathology	5/8"	N/A	96% (Full-ring PET 100%)	N/A		Yes	Stronger study design with pathologic gold standard.
	Shreve 1998	BGO Full-ring PET	5/8"	Similar	93%	N/A		Yes	

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Thorax/ Mediastinum									
	Landoni 1999	BGO Full-ring PET	5/8"	N/A	84%	N/A		Yes: 100% concordance if at least 2.0 cm	
	Boren 1999	BGO Full-ring PET	5/8"	Similar	83%	N/A		Yes: 100% concordance if at least 1.5 cm	
	Zimny 1999 (Eur J Nuc Med)	BGO Full-ring PET	5/8"	Similar	84%	N/A		Yes: 100% concordance if at least 2.0 cm	
	Zimny 1999 (Nuklearmedizin)	BGO Full-ring PET	5/8"	Similar	64%	N/A	11%	Yes: 100% concordance if at least 1.8 cm	
	Shreve 1998	BGO Full-ring PET	5/8"	Similar	65%	N/A		Yes	
	Tatsumi 1999 <ul style="list-style-type: none"> • Mediastinal lymph nodes • Hilar lymph nodes 	Histopathology	5/8"	N/A	78% (Full-ring PET 78%) 75% (Full-ring PET 100%)	93% (Full-ring PET 79%) 90% (Full-ring PET 84%)		No	Note improved specificity of gamma camera over full-ring PET.
	Segall 1999 (Abstract)	BGO Full-ring PET	1/2"	Similar	88%	N/A		No	

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Abdomen/ Pelvis									
	Boren 1999	BGO Full-ring PET	5/8"	Similar	Hepatic 67% Extrahepatic 78%	N/A		Yes, but concordance data N/A	
	Zimny 1999 (Eur J Nuc Med)	BGO Full-ring PET	5/8"	Similar	87%	N/A		Yes: 100% concordance if at least 2.0 cm	
	Zimny 1999 (Nuklearmedizin)	BGO Full-ring PET	5/8"	Similar	93%	N/A	11%	Yes: 100% concordance if at least 1.8 cm	High proportion of lymphomas, with high glucose consumption.
	Shreve 1998	BGO Full-ring PET	5/8"	Similar	23%	N/A		Yes	Note different composition of tumors than Zimny 1999.
	Segall 1999 (Abstract)	BGO Full-ring PET	1/2"	Similar	71%	N/A		No	
Musculo-skeletal									
	Shreve 1998	BGO Full-ring PET	5/8"	Similar	50%	N/A		Yes	
	Segall 1999 (Abstract)	BGO Full-ring PET	1/2"	Similar	92%	N/A		No	
Non-Hodgkin's Lymphoma	Tatsumi 2000 (Abstract)	Independent Clinical Evaluation	5/8"	N/A	77% (Full-ring PET 87%)	N/A	7%	Yes: 100% concordance if at least 1.5 cm	

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